

# Food Insecurity Experience Scale 2023

**FAO Statistics Division**

report\_generated\_on: October 18, 2024

visit\_data\_catalog\_at: <http://catalog.ihsn.org/>

## Identification

### SURVEY ID NUMBER

MKD\_2023\_FIES\_v01\_M\_v01\_A\_ESS

### TITLE

Food Insecurity Experience Scale 2023

### ABBREVIATION OR ACRONYM

FIES 2023

### COUNTRY

Name	Country code
North Macedonia	MKD

### STUDY TYPE

Socio-Economic/Monitoring Survey [hh/sems]

### ABSTRACT

Sustainable Development Goal (SDG) target 2.1 commits countries to end hunger, ensure access by all people to safe, nutritious and sufficient food all year around. Indicator 2.1.2, "Prevalence of moderate or severe food insecurity based on the Food Insecurity Experience Scale (FIES)", provides internationally-comparable estimates of the proportion of the population facing difficulties in accessing food. More detailed background information is available at <http://www.fao.org/in-action/voices-of-the-hungry/fies/en/>

The FIES-based indicators are compiled using the FIES survey module, containing 8 questions. Two indicators can be computed:

1. The proportion of the population experiencing moderate or severe food insecurity (SDG indicator 2.1.2),
2. The proportion of the population experiencing severe food insecurity.

These data were collected by FAO through the Gallup World Poll. General information on the methodology can be found here: <https://www.gallup.com/178667/gallup-world-poll-work.aspx>. National institutions can also collect FIES data by including the FIES survey module in nationally representative surveys.

Microdata can be used to calculate the indicator 2.1.2 at national level. Instructions for computing this indicator are described in the methodological document available in the downloads tab. Disaggregating results at sub-national level is not encouraged because estimates will suffer from substantial sampling and measurement error.

### KIND OF DATA

Sample survey data [ssd]

### UNIT OF ANALYSIS

Individuals

## Scope

### NOTES

This dataset contains demographic variables related to number of adults and children in the household, age, education, area (urban/rural), gender, income and degree of urbanization. Also, the FIES survey module includes the following questions to compute the FIES-based indicators:

During the last 12 months, was there a time when, because of lack of money or other resources:

1. You were worried you would not have enough food to eat?
2. You were unable to eat healthy and nutritious food?
3. You ate only a few kinds of foods?
4. You had to skip a meal?
5. You ate less than you thought you should?

6. Your household ran out of food?
7. You were hungry but did not eat?
8. You went without eating for a whole day?

The dataset also includes derived variables computed by FAO described in the documentation.

#### TOPICS

Topic
SDGs
Food Access

#### KEYWORDS

Keyword
Food Insecurity
FIES
SDG

## Coverage

#### GEOGRAPHIC COVERAGE

National

#### UNIVERSE

Individuals of 15 years or older with access to landline and/or mobile phones.

## Producers and sponsors

#### PRIMARY INVESTIGATORS

Name	Affiliation
FAO Statistics Division	FAO

## Sampling

#### SAMPLING PROCEDURE

With some exceptions, all samples are probability based and nationally representative of the resident adult population. The coverage area is the entire country including rural areas, and the sampling frame represents the entire civilian, non-institutionalized, aged 15 and older population.

For more details on the overall sampling and data collection methodology, see the World poll methodology attached as a resource in the downloads tab. Specific sampling details for each country are also attached as technical documents in the downloads tab.

Exclusions: NA

Design effect: 1.46

#### WEIGHTING

The sample data was weighted to minimize bias in survey-based estimates. The weighting procedure was formulated based on the sample design and was carried out in multiple stages. A probability weight factor (base weight) was constructed to account for selection of telephone numbers from the respective frames and correct for unequal selection probabilities as a result of selecting one adult in landline households and for dual-users coming from both the landline and mobile frame. At the next step, the base weights were post-stratified to adjust for non-response and to match the weighted sample totals to known target population totals obtained from country level census data.

## Data collection

### DATES OF DATA COLLECTION

Start	End
2023-07-13	2023-09-30

### DATA COLLECTION MODE

Face-to-Face [f2f]

## data\_processing

### DATA EDITING

Statistical validation assesses the quality of the FIES data collected by testing their consistency with the assumptions of the Rasch model. This analysis involves the interpretation of several statistics that reveal 1) items that do not perform well in a given context, 2) cases with highly erratic response patterns, 3) pairs of items that may be redundant, and 4) the proportion of total variance in the population that is accounted for by the measurement model.

### METHODOLOGY NOTES

As part of the statistical disclosure control process, values for number of children and number of adults that were 10 or above, were recoded as "10+" and categories for area were combined into "urban/suburbs" and "towns/rural".

## data\_appraisal

### ESTIMATES OF SAMPLING ERROR

The margin of error is estimated as 3.8. This is calculated around a proportion at the 95% confidence level. The maximum margin of error was calculated assuming a reported percentage of 50% and takes into account the design effect.

## Access policy

### CONTACTS

Name	Affiliation	Email	URL
FAO Statistics Division	FAO	Carlo.Cafiero@fao.org	<a href="#">Link</a>

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The user of the data acknowledges that the original collector of the data, the authorized distributor of the data, and the relevant funding agency bear no responsibility for use of the data or for interpretations or inferences based upon such uses.

## Metadata production

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### DDI DOCUMENT ID

DDI\_MKD\_2023\_FIES\_v01\_M\_v01\_A\_ESS\_FAO

### PRODUCERS

Name	Abbreviation	Affiliation	Role
Data Dissemination Unit, ESS		Food and Agriculture Organization	Metadata producer
Development Economics Data Group	DECDG	The World Bank	Metadata adapted for World Bank Microdata Library

### DDI DOCUMENT VERSION

Identical to a metadata (MKD\_2023\_FIES\_v01\_EN\_M\_v01\_A\_ESS) published on FAO microdata repository (<https://microdata.fao.org/index.php/catalog>). Some of the metadata fields have been edited.

**data\_dictionary**

Data file	Cases	variables
<b>MKD_2023_FIES_v01_EN_M_v01_A_ESS</b> This dataset contains the variables used to calculate the FIES-based indicator, demographic variables and some derived variables calculated by FAO from the survey.	1000	24



**Data file: MKD\_2023\_FIES\_v01\_EN\_M\_v01\_A\_ESS**

This dataset contains the variables used to calculate the FIES-based indicator, demographic variables and some derived variables calculated by FAO from the survey.

Cases: 1000

variables: 24

**variables**

ID	Name	Label	Question
53	Random_ID	Unique respondent identifier	
54	WORRIED	Worried you would not have enough food to eat because of a lack of money or other resources	
55	HEALTHY	Unable to eat healthy and nutritious food because of a lack of money or other resources	
56	FEWFOOD	Ate only a few kinds of foods because of a lack of money or other resources	
57	SKIPPED	Skipped a meal because there was not enough money or other resources to get food	
58	ATELESS	Ate less than you thought you should because of a lack of money or other resources	
59	RUNOUT	Household ran out of food because of a lack of money or other resources	
60	HUNGRY	Hungry but did not eat because there was not enough money or other resources for food?	
61	WHLDAY	Went without eating for a whole day because of a lack of money or other resources?	
62	wt	Post-stratification sampling weights	
63	year	Year when the GWP was administered in the country	
64	N_adults	Number of adults 15 years of age and above in household	
65	N_child	Number of children under 15 years of age in household	
66	Raw_score	Sum of Affirmative responses to FIES questions	
67	Raw_score_par	Estimated person parameters using the Rasch model	
68	Raw_score_par_error	Estimated person parameter errors using the Rasch model	
69	Prob_Mod_Sev	Probability of being moderately or severely food insecure	
70	Prob_sev	Probability of being severely food insecure	
71	Age	Age of the respondent	
72	Education	Education of the respondent	
73	Area	Area	
74	Gender	Gender of the respondent	
75	Income	Income quintile	
76	DEGURBA	Degree of Urbanisation	

total: 24





**RANDOM\_ID: Unique respondent identifier****Data file:** MKD\_2023\_FIES\_v01\_EN\_M\_v01\_A\_ESS**Overview**

Valid: 1000   Invalid: 0   Minimum: 111140862   Maximum: 211082261   Mean: 160459502.471   Standard deviation: 28518986.222  
 Type: Continuous   Decimal: 0   Width: 10   Range: 111140862 - 211082261   Format: Numeric

**WORRIED: Worried you would not have enough food to eat because of a lack of money or other resources****Data file:** MKD\_2023\_FIES\_v01\_EN\_M\_v01\_A\_ESS**Overview**

Valid: 997   Invalid: 3  
 Type: Discrete   Width: 12   Range: 0 - 1   Format: character

**Questions and instructions**

## CATEGORIES

Value	Category	Cases	
0	No	766	76.8%
1	Yes	231	23.2%
Sysmiss		3	

**HEALTHY: Unable to eat healthy and nutritious food because of a lack of money or other resources****Data file:** MKD\_2023\_FIES\_v01\_EN\_M\_v01\_A\_ESS**Overview**

Valid: 999   Invalid: 1  
 Type: Discrete   Width: 12   Range: 0 - 1   Format: character

**Questions and instructions**

## CATEGORIES

Value	Category	Cases	
0	No	778	77.9%
1	Yes	221	22.1%
Sysmiss		1	

**FEWFOOD: Ate only a few kinds of foods because of a lack of money or other resources**

Data file: MKD\_2023\_FIES\_v01\_EN\_M\_v01\_A\_ESS

**Overview**

Valid: 998 Invalid: 2

Type: Discrete Width: 12 Range: 0 - 1 Format: character

**Questions and instructions**

## CATEGORIES

Value	Category	Cases	
0	No	784	78.6%
1	Yes	214	21.4%
Sysmiss		2	

**SKIPPED: Skipped a meal because there was not enough money or other resources to get food**

Data file: MKD\_2023\_FIES\_v01\_EN\_M\_v01\_A\_ESS

**Overview**

Valid: 1000 Invalid: 0

Type: Discrete Width: 12 Range: 0 - 1 Format: character

**Questions and instructions**

## CATEGORIES

Value	Category	Cases	
0	No	905	90.5%
1	Yes	95	9.5%
Sysmiss		0	

**ATELESS: Ate less than you thought you should because of a lack of money or other resources**

Data file: MKD\_2023\_FIES\_v01\_EN\_M\_v01\_A\_ESS

**Overview**

Valid: 1000 Invalid: 0

Type: Discrete Width: 12 Range: 0 - 1 Format: character

**Questions and instructions**

## CATEGORIES

Value	Category	Cases	
0	No	890	89%
1	Yes	110	11%
Sysmiss		0	

## **RUNOUT: Household ran out of food because of a lack of money or other resources**

Data file: MKD\_2023\_FIES\_v01\_EN\_M\_v01\_A\_ESS

### **Overview**

Valid: 1000    Invalid: 0  
 Type: Discrete    Width: 12    Range: 0 - 1    Format: character

### **Questions and instructions**

#### CATEGORIES

Value	Category	Cases	
0	No	939	93.9%
1	Yes	61	6.1%
Sysmiss		0	

## **HUNGRY: Hungry but did not eat because there was not enough money or other resources for food?**

Data file: MKD\_2023\_FIES\_v01\_EN\_M\_v01\_A\_ESS

### **Overview**

Valid: 999    Invalid: 1  
 Type: Discrete    Width: 12    Range: 0 - 1    Format: character

### **Questions and instructions**

#### CATEGORIES

Value	Category	Cases	
0	No	943	94.4%
1	Yes	56	5.6%
Sysmiss		1	

## **WHLDAY: Went without eating for a whole day because of a lack of money or other resources?**

Data file: MKD\_2023\_FIES\_v01\_EN\_M\_v01\_A\_ESS

## Overview

Valid: 998 Invalid: 2  
 Type: Discrete Width: 12 Range: 0 - 1 Format: character

## Questions and instructions

### CATEGORIES

Value	Category	Cases	
0	No	960	96.2%
1	Yes	38	3.8%
Sysmiss		2	

## WT: Post-stratification sampling weights

Data file: MKD\_2023\_FIES\_v01\_EN\_M\_v01\_A\_ESS

## Overview

Valid: 1000 Invalid: 0 Minimum: 0.245 Maximum: 3.569 Mean: 1 Standard deviation: 0.682  
 Type: Continuous Decimal: 0 Width: 10 Range: 0.24472272706316 - 3.56887310300442 Format: Numeric  
 Weighted: yes

## YEAR: Year when the GWP was administered in the country

Data file: MKD\_2023\_FIES\_v01\_EN\_M\_v01\_A\_ESS

## Overview

Valid: 1000 Invalid: 0  
 Type: Discrete Decimal: 0 Width: 12 Range: 1 - 1 Format: Numeric

## Questions and instructions

### CATEGORIES

Value	Category	Cases	
1	2023	1000	100%
Sysmiss		0	

## N\_ADULTS: Number of adults 15 years of age and above in household

Data file: MKD\_2023\_FIES\_v01\_EN\_M\_v01\_A\_ESS

## Overview

Valid: 995 Invalid: 5  
 Type: Discrete Width: 12 Range: 1 - 7 Format: character

## Questions and instructions

### CATEGORIES

Value	Category	Cases	
01	01	254	25.5%
02	02	432	43.4%
03	03	170	17.1%
04	04	111	11.2%
05	05	20	2%
06	06	3	0.3%
07	07	4	0.4%
10	10+	1	0.1%
Sysmiss		5	

## **N\_CHILD: Number of children under 15 years of age in household**

Data file: MKD\_2023\_FIES\_v01\_EN\_M\_v01\_A\_ESS

### Overview

Valid: 999 Invalid: 1

Type: Discrete Width: 12 Range: 0 - 8 Format: character

## Questions and instructions

### CATEGORIES

Value	Category	Cases	
00	00	726	72.7%
01	01	122	12.2%
02	02	108	10.8%
03	03	39	3.9%
04	04	1	0.1%
05	05	1	0.1%
08	08	1	0.1%
10	10+	1	0.1%
Sysmiss		1	

## **RAW\_SCORE: Sum of Affirmative responses to FIES questions**

Data file: MKD\_2023\_FIES\_v01\_EN\_M\_v01\_A\_ESS

**Overview**

Valid: 991    Invalid: 9    Minimum: 0    Maximum: 8    Mean: 1.027    Standard deviation: 1.959  
 Type: Continuous    Decimal: 0    Width: 10    Range: 0 - 8    Format: Numeric

---

**RAW\_SCORE\_PAR: Estimated person parameters using the Rasch model**

Data file: MKD\_2023\_FIES\_v01\_EN\_M\_v01\_A\_ESS

**Overview**

Valid: 991    Invalid: 9    Minimum: -1.927    Maximum: 2.103    Mean: -1.436    Standard deviation: 0.963  
 Type: Continuous    Decimal: 0    Width: 10    Range: -1.92710244322582 - 2.10339075544736    Format: Numeric

---

**RAW\_SCORE\_PAR\_ERROR: Estimated person parameter errors using the Rasch model**

Data file: MKD\_2023\_FIES\_v01\_EN\_M\_v01\_A\_ESS

**Overview**

Valid: 991    Invalid: 9    Minimum: 0.466    Maximum: 0.706    Mean: 0.646    Standard deviation: 0.094  
 Type: Continuous    Decimal: 0    Width: 10    Range: 0.465763956124338 - 0.70609138944508    Format: Numeric

---

**PROB\_MOD\_SEV: Probability of being moderately or severely food insecure**

Data file: MKD\_2023\_FIES\_v01\_EN\_M\_v01\_A\_ESS

**Overview**

Valid: 991    Invalid: 9    Minimum: 0    Maximum: 1    Mean: 0.129    Standard deviation: 0.295  
 Type: Continuous    Decimal: 0    Width: 10    Range: 0 - 0.99968747755185    Format: Numeric

---

**PROB\_SEV: Probability of being severely food insecure**

Data file: MKD\_2023\_FIES\_v01\_EN\_M\_v01\_A\_ESS

**Overview**

Valid: 991    Invalid: 9    Minimum: 0    Maximum: 0.627    Mean: 0.021    Standard deviation: 0.102  
 Type: Continuous    Decimal: 0    Width: 10    Range: 0 - 0.626538647391646    Format: Numeric

---

**AGE: Age of the respondent**

Data file: MKD\_2023\_FIES\_v01\_EN\_M\_v01\_A\_ESS

**Overview**

Valid: 1000    Invalid: 0    Minimum: 15    Maximum: 89    Mean: 53.359    Standard deviation: 17.699  
 Type: Continuous    Decimal: 0    Width: 10    Range: 15 - 89    Format: Numeric

---

**EDUCATION: Education of the respondent****Data file:** MKD\_2023\_FIES\_v01\_EN\_M\_v01\_A\_ESS**Overview**

Valid: 999    Invalid: 1

Type: Discrete    Decimal: 0    Width: 12    Range: 1 - 3    Format: Numeric

**Questions and instructions**

## CATEGORIES

Value	Category	Cases	
1	Elementary_or_less	224	22.4%
2	Secondary	577	57.8%
3	College	198	19.8%
4	Dont_know	0	0%
5	Refused	0	0%
Sysmiss		1	

**AREA: Area****Data file:** MKD\_2023\_FIES\_v01\_EN\_M\_v01\_A\_ESS**Overview**

Valid: 1000    Invalid: 0

Type: Discrete    Decimal: 0    Width: 12    Range: 1 - 2    Format: Numeric

**Questions and instructions**

## CATEGORIES

Value	Category	Cases	
1	Urban/Suburbs	496	49.6%
2	Towns/Rural	504	50.4%
3	Dont_know	0	0%
4	Refused	0	0%
Sysmiss		0	

**GENDER: Gender of the respondent****Data file:** MKD\_2023\_FIES\_v01\_EN\_M\_v01\_A\_ESS**Overview**

Valid: 1000    Invalid: 0

Type: Discrete    Decimal: 0    Width: 12    Range: 1 - 2    Format: Numeric



## Questions and instructions

### CATEGORIES

Value	Category	Cases	
1	Male	448	44.8%
2	Female	552	55.2%
Sysmiss		0	

## INCOME: Income quintile

Data file: MKD\_2023\_FIES\_v01\_EN\_M\_v01\_A\_ESS

### Overview

Valid: 1000 Invalid: 0

Type: Discrete Decimal: 0 Width: 12 Range: 1 - 5 Format: Numeric

## Questions and instructions

### CATEGORIES

Value	Category	Cases	
1	Poorest_20%	132	13.2%
2	Second_20%	192	19.2%
3	Middle_20%	207	20.7%
4	Fourth_20%	216	21.6%
5	Richest_20%	253	25.3%
Sysmiss		0	

## DEGURBA: Degree of Urbanisation

Data file: MKD\_2023\_FIES\_v01\_EN\_M\_v01\_A\_ESS

### Overview

Valid: 1000 Invalid: 0

Type: Discrete Decimal: 0 Width: 12 Range: 1 - 3 Format: Numeric

## Questions and instructions

### CATEGORIES

Value	Category	Cases	
1	Rural areas	209	20.9%
2	Towns and semi-dense areas	391	39.1%
3	Cities	400	40%

4	Not available	0	0%
Sysmiss		0	

# study\_resources

## questionnaires

### FIES questions

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title FIES questions  
 description This document contains the 8 FIES questions as they were asked during the survey  
 filename FIES\_Questions.pdf

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## technical\_documents

### Derived variables and methodology to compute indicator 2.1.2

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title Derived variables and methodology to compute indicator 2.1.2  
 description This document contains the methodology of the derived variables and the computation of the indicator 2.1.2.  
 filename Derived\_variables\_and\_Computation\_indicator.pdf

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### Degree of Urbanisation Variable

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title Degree of Urbanisation Variable  
 description This document contains an explanation on the degree of urbanisation from Gallup, an harmonized variable for cross-country survey research  
 filename World\_Poll\_Degree\_of\_Urbanisation.pdf

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### World Poll Methodology

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title World Poll Methodology  
 description This document contains the description of the methodology used for the survey.  
 filename World\_Poll\_Methodology\_021524.pdf

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### Technical documentation on sampling methodology

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title Technical documentation on sampling methodology  
 country North Macedonia  
 filename North\_Macedonia\_1\_2023\_technical\_doc.pdf

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